

**REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Non-Final Office Action dated October 27, 2003 has been received and its contents carefully reviewed.

Claims 1-20 are pending in the current application. Applicants amend claims 1, 7, 9, 12, 13, 14, and 18 to more particularly recite features of the invention.

In the Office Action, claim 13 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1-4, 6, 9, 10, and 12 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,739,880 to Suzuki et al. Claims 5 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of U.S. Patent 6,621,454 B1 to Park et al. Claims 7, 8, 18, and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki. Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of U.S. Patent 6,384,889 to Miyachi et al. Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,448,579 to Lim in view of U.S. Patent 4,723,838 to Aoki, in view of Japanese Patent JP 11-326949 to Kohei et al., in view of U.S. Patent 6,172,729 B1 to Ikeda, in view of U.S. Patent 5,621,553 to Nishiguchi and further in view of U.S. Patent Application 2002/0030769 to Bae. Claims 14-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,243,146 to Rho et al. in view of U.S. Patent 4,206,471 to Hoffmann et al. and further in view of Japanese Patent JP-10-090717 to Kataoka et al.

As indicated above, Applicants amend claim 13. Accordingly, Applicants respectfully request the Examiner to withdraw the objection.

Applicants note that Bae is not a valid prior art reference under 35 U.S.C. §102, because the filing date of the reference, September 24, 2001, is well after the foreign priority date of December 21, 2000 of the present application. Therefore, Bae is not a valid reference under 35 U.S.C. §103(a). Furthermore, Lim is not valid prior art under 35 U.S.C. §103(c) because it is assigned to LG.Philips LCD Co., Ltd. which is also the assignee of the present application.

The rejection of claims 1-6 is respectfully traversed and reconsideration is requested. Independent claim 1 is allowable over the cited references in that it recites a combination of elements including, for example, “wherein a passivation layer is removed in the non-display region”. None of the cited references including Suzuki, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of claim 1 of the present invention is different from the structures in the cited references in that Suzuki does not disclose “a passivation layer is removed in the non-display region”. Figure 5(a) of Suzuki clearly shows that the passivation layer PSV1 is not removed in the non-display region, because portions of the seal pattern SL are formed on the surface of the passivation layer. Therefore, Suzuki cannot disclose or suggest that the “passivation layer is removed in the non-display region” as claim 1 requires. Because Suzuki does not teach, disclose or suggest this claimed feature of Applicants’ invention, claim 1, and claims 2-6 which depend from claim 1, are allowable at least for this reason.

The rejection of claims 7-8 is respectfully traversed and reconsideration is requested. Independent claim 7 is allowable over the cited references in that it recites a combination of elements including, for example, “wherein a passivation layer in a boundary region between a display area and a non-display area of the lower substrate is removed...[and] forming a seal pattern in the boundary region”. None of the cited references including Suzuki, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of claim 7 of the present invention is different from the structures in the cited references in that Suzuki does not disclose “a passivation layer is removed in the boundary region” and “forming a seal pattern in the boundary region”. Figure 5(a) of Suzuki clearly shows that the passivation layer PSV1 is present in the region where the seal pattern SL is formed, and that the seal pattern SL is formed on the surface of the passivation layer PSV1. Therefore, Suzuki cannot disclose or suggest that the “wherein a passivation layer in a boundary region between a display area and a non-display area of the lower substrate is removed...[and] forming a seal pattern in the boundary region” as claim 7 requires. Because Suzuki does not teach, disclose or suggest this claimed feature of Applicants’ invention, claim 7 and claim 8, which depends from claim 7, are allowable at least for this reason.

The rejection of claim 9 is respectfully traversed and reconsideration is requested. Independent claim 9 is allowable over the cited references in that it recites a combination of elements including, for example, “wherein a passivation layer is removed in the seal pattern forming region”. None of the cited references including Suzuki, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of claim 9 of the present invention is different from the structures in the cited references in that Suzuki does not disclose “a passivation layer is removed in the seal pattern forming region”. Figure 5(a) of Suzuki clearly shows that the passivation layer PSV1 is not removed in the seal pattern forming region, because portions of the seal pattern SL are formed directly on the surface of the passivation layer. Therefore, Suzuki cannot disclose or suggest that the “passivation layer is removed in the seal pattern forming region” as claim 9 requires. Because Suzuki does not teach, disclose or suggest this claimed feature of Applicants’ invention, claim 9 is allowable at least for this reason.

The rejection of claims 10-11 is respectfully traversed and reconsideration is requested. Independent claim 10 is allowable over the cited references in that it recites a combination of elements including, for example, “a seal pattern formed between the upper substrate and the lower substrate along a boundary region... wherein a passivation layer is removed in the boundary region”. None of the cited references including Suzuki and Miyachi, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of claim 10 of the present invention is different from the structures in the cited references in that Suzuki does not disclose “a passivation layer is removed in the boundary region”. Figure 5(a) of Suzuki clearly shows that the passivation layer PSV1 is not removed in the boundary region, because portions of the seal pattern SL are formed directly on the surface of the passivation layer. Therefore, Suzuki cannot disclose or suggest that the “passivation layer is removed in the boundary region” as claim 10 requires. The Examiner does not allege that Miyachi teaches, discloses, or suggests this feature, and Applicants submit that it does not. Because Suzuki and Miyachi do not teach, disclose or suggest this claimed feature of Applicants’ invention, claim 10 and claim 11 which depends from claim 10, are allowable at least for this reason.

The rejection of claim 12 is respectfully traversed and reconsideration is requested. Independent claim 12 is allowable over the cited references in that it recites a combination of elements including, for example, “a seal pattern formed between the upper substrate and the lower substrate and in contact with the gate insulating layer along a boundary between a display area and a non-display area”. None of the cited references including Suzuki, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of claim 12 of the present invention is different from the structures in the cited references in that Suzuki does not disclose “a seal pattern in contact with the gate insulating layer”. Figure 5(a) of Suzuki clearly shows that the gate insulating layer GI is not present in the region where the seal pattern SL is formed.. Therefore, Suzuki cannot disclose or suggest that the “passivation layer is removed in the seal pattern forming region” as claim 12 requires. Because Suzuki does not teach, disclose or suggest this claimed feature of Applicants’ invention, claim 9 is allowable at least for this reason.

The rejection of claims 14-17 is respectfully traversed and reconsideration is requested. Independent claim 14 is allowable over the cited references in that it recites a combination of elements including, for example, “the pixel electrode contacting a lateral side of the auxiliary capacitance electrode”. None of the cited references including Hoffmann, Rho, or Kataoka, singly or in combination, teaches or suggests at least this feature of the claimed invention. The Examiner acknowledges that Rho and Hoffmann do not teach, disclose or suggest this feature. However, the structure of claim 14 of the present invention is different from the structure in Kataoka in that Kataoka does not disclose “the pixel electrode contacting a lateral side of the auxiliary capacitance electrode”. In Figures 2 and 9 of Kataoka, the pixel electrode 19 does not contact auxiliary capacity wire 4 at all. Because the cited references do not teach, disclose or suggest this claimed feature of Applicants’ invention, claims 14-17 are allowable at least for this reason.

The rejection of claims 18 -20 is respectfully traversed and reconsideration is requested. Independent claim 18 is allowable over the cited references in that it recites a combination of elements including, for example, “the passivation layer removed from a seal pattern forming region”. None of the cited references including Suzuki, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of

claim 18 of the present invention is different from the structures in the cited references in that Suzuki does not disclose "the passivation layer removed from a seal pattern forming region". Figure 5(a) of Suzuki clearly shows that the passivation layer PSV1 is present in the region where the seal pattern SL is formed, and that the seal pattern SL is formed on the surface of the passivation layer PSV1. Therefore, Suzuki cannot disclose or suggest that the "the passivation layer removed from a seal pattern forming region" as claim 18 requires. Because Suzuki does not teach, disclose or suggest this claimed feature of Applicants' invention, claim 18 and claims 19 and 20, which depend from claim 18, are allowable at least for this reason.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: January 27, 2004

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